

Table:

DNA sample(s)/source:	2014 Kit Plate #3, well 12A
Chemically competent bacterial strain, symbol:	BL21, stars
Volume of cells used:	50 μ L
Quantity of DNA transformed:	5 μ L
Additional info: <ul style="list-style-type: none"> - (did you shorten the ice incubation time to 15 minutes instead of 30 minutes?) - (did you accidentally leave the tube in the incubator to recover for too long?) 	

Preparations:

- Preheat water bath to 42°C.
- Fill ice bucket.
- Take a tube of chemically competent cells from our box in the -80°C freezer, and let it thaw on ice. (But don't let it get warm!)
- Thaw DNA sample if necessary.
- If starting with DNA from the parts registry, first locate the correct well for the plasmid you are looking to transform. Transfer 10 μ L of dH₂O into the well, using the tip to pierce through the foil covering of only that well. Pipette up and down to resuspend, then wait 5 minutes and repeat.

Procedure:

- 1) Mix 5 μ L of DNA sample into 50 μ L (1 tube) of chemically competent cells.
- 2) Let tubes incubate on ice for 30 minutes.
- 3) Heat shock tubes by placing them in the 42°C water bath for 30 second.
- 4) Add 1 mL LB per tube, cap tightly, and incubate on rocker at 37°C for 1 hr.
- 5) Plate 200 μ L on LB + selective media and incubate at 37°C overnight.